

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for testing *Streptococcus pneumoniae* for resistance to penicillin, the method comprising the steps of:

- a) isolating DNA from *Streptococcus pneumoniae* having unknown resistance to penicillin,
- b) hybridizing the DNA obtained in step (a) with
 - (i) ~~at least~~ more than one DNA probe specific to a DNA sequence specific to a penicillin binding protein (PBP) gene of penicillin sensitive strains of *Streptococcus pneumoniae*, wherein the DNA sequence is present in the PBP gene of penicillin sensitive strains of *Streptococcus pneumoniae* but is modified in the PBP gene of penicillin resistant strains of *Streptococcus pneumoniae*; and
 - (ii) ~~at least~~ more than one DNA probe specific to a DNA sequence specific to a PBP gene of penicillin resistant strains of *Streptococcus pneumoniae*, wherein the DNA sequence specific to a PBP gene of penicillin resistant strains of *Streptococcus pneumoniae* is different from the DNA sequence of the PBP gene present in penicillin sensitive strains of *Streptococcus pneumoniae*, and
- c) determining whether or not said *Streptococcus pneumoniae* is sensitive to penicillin or not by detecting which probe or probes hybridize, wherein the PBP gene is selected from the group consisting of PBP2x, PBP1a

and PBP2b.

2. – 10. (Cancelled)

11. (Previously Presented) A method for testing *Streptococcus pneumoniae* for resistance to penicillin, the method comprising the steps of:

- a) isolating DNA from *Streptococcus pneumoniae* having unknown resistance to penicillin,
- b) exposing the DNA obtained in step (a) with at least one DNA probe specific to a DNA sequence specific for penicillin sensitive strains of *Streptococcus pneumoniae* and at least one DNA probe specific to a DNA sequence specific for penicillin resistant strains of *Streptococcus pneumoniae* under conditions that would permit hybridization, and
- c) determining whether or not said *Streptococcus pneumoniae* strain is sensitive to penicillin or not by detecting which probe or probes hybridize;

wherein the at least one DNA probe specific to a DNA sequence specific for penicillin sensitive strains of *Streptococcus pneumoniae* is selected from the group of sequences consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, and SEQ ID NO: 13; and wherein the at least one DNA probe specific to a DNA sequence specific for penicillin resistant strains of *Streptococcus pneumoniae* is selected from the group of sequences consisting of SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, and SEQ ID NO: 19.

12. – 17. (Cancelled)

18. – 20. (Cancelled)

21. (Previously Presented) The method according to claim 11, wherein the probes are labeled radioactively.

22. (Currently Amended) The method according to claim [[8]] 1, wherein the DNA sequence of the DNA probes specific to DNA sequences specific for a PBP gene of penicillin sensitive strains of *Streptococcus pneumonia* consists of a DNA sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO:3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, and SEQ ID NO: 13.

23. (Currently Amended) The method according to claim [[8]] 1, wherein the DNA sequence of the DNA probes specific to DNA sequences specific for a PBP gene of penicillin resistant strains of *Streptococcus pneumonia* consists of a DNA sequence selected from the group consisting of SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, and SEQ ID NO: 19.

24. (Previously Presented) A method for testing *Streptococcus pneumoniae* for resistance to penicillin, the method comprising the steps of:

a) isolating DNA from *Streptococcus pneumoniae*, having unknown resistance to penicillin

b) hybridizing the DNA obtained in step (a) with

(i) more than one oligonucleotide that hybridizes to DNA sequence specific to a penicillin binding protein (PBP) gene of penicillin sensitive strains of *Streptococcus pneumoniae*, wherein this DNA sequence is present in the PBP gene of penicillin sensitive strains of *Streptococcus pneumoniae* but is modified in the DNA sequence aligned thereto of the PBP gene of penicillin resistant strains of *Streptococcus pneumoniae*; and

(ii) more than one oligonucleotide that hybridizes to a DNA sequence specific to a PBP gene of penicillin resistant strains of *Streptococcus pneumoniae*, wherein this DNA sequence specific to a PBP gene of penicillin resistant strains of *Streptococcus pneumoniae* is different from the DNA sequence aligned thereto in the PBP gene of penicillin sensitive strains of *Streptococcus pneumoniae* and

c) determining whether or not said *Streptococcus pneumoniae* is sensitive to penicillin by detecting which oligonucleotide or oligonucleotides hybridize, wherein the PBP gene is selected from the group consisting of PBP2x, PBP1a and PBP2b.

25. (Cancelled)

26. (Previously Presented) The method according to claim 24, wherein the hybridization is carried out in SSC hybridization solution at a hybridization temperature of 45°-60 °C for at least 5 hours.

27. (New) A method for testing *Streptococcus pneumoniae* for resistance to penicillin, the method comprising the steps of:

a) isolating DNA from *Streptococcus pneumoniae*, having unknown resistance to penicillin,

b) exposing the DNA obtained in step (a) with more than one DNA probe specific to a DNA sequence specific for penicillin sensitive strains of *Streptococcus pneumoniae*, and more than one DNA probe specific to a DNA sequence specific for penicillin resistant strains of *Streptococcus pneumoniae* under conditions which can permit hybridization, and

c) determining whether or not said *Streptococcus pneumoniae* strain is sensitive to penicillin or not by detecting which probe or probes hybridize;

wherein the DNA probes specific to a DNA sequence specific for penicillin sensitive strains of *Streptococcus pneumoniae* is selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4,

SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, and wherein the DNA probes specific to a DNA sequence specific for penicillin resistant strains of *Streptococcus pneumoniae* is selected from the group consisting of SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, and SEQ ID NO: 19.